In re Application of:			
Nordine CHEIKH *et al.*		Art Unit:	1647
Appln. No.:	09/976,054	Examiner:	Marianne P. Allen
Filed:	October 15, 2001	Confirmation No.:	3580
For:	Nucleic Acid Molecules and Other Molecules Associated with Plants	Atty. Docket:	16517.256

REVISED APPELLANTS' BRIEF

Mail Stop Appeal Brief – Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This is an Appeal from the Final Rejection of claims in the above-captioned patent application. A Notice of Appeal was filed on February 13, 2008. Authorization to charge the official fees for this filing is given in the accompanying transmittal letter.

1. Real Party in Interest

The real party in interest is Monsanto Company, a Delaware corporation with offices at 800 North Lindbergh Boulevard, St. Louis, Missouri 63167.

2. Related Appeals and Interferences

The Real Party filed an Appeal Brief in U.S. Patent Application Serial No. 09/199,129, which may have a bearing on the present appeal.

3. Status of Claims

Claims 12-17, 20-23, and 25 are pending. Claims 2-11 were cancelled by Appellants in the response dated March 19, 2003. Claims 1 and 18-19 were cancelled by Appellants in the response dated December 21, 2006. Claim 24 was cancelled by Appellants in the response dated June 6, 2007. Claims 12-17 are indicated as being allowable by the Office. Claims 20-23 and 25 stand finally rejected under 35 U.S.C. § 112, first paragraph, written description and 35 U.S.C. § 112, first paragraph, enablement. Appellants appeal all of the rejections of each of claims 20-23 and 25.[1]

4. Status of Amendments

Appellants have not filed any responses to the Final Office Action dated November 13, 2007 ("Final Office Action").

5. Summary of Claimed Subject Matter

A. Independent Claim 20: The subject matter of independent claim 20 is directed to a transformed plant comprising a recombinant nucleic acid molecule having the full-length sequence of SEQ ID NO: 5 or complement thereof. Specification at page 205, lines 8-9; Appendix A; page 39, lines 9-11; page 24, lines 3-14; and page 82, line 17 through page 105, line 3.

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[1] Claims 12-17, 20-23, and 25 remain in this case. Claims 12-17 are indicated as allowable by the Examiner. The patentability of claims 20-23 and 25 is addressed together in Sections 7(A) through 7(C) below. The separate patentability of claims 20-23 and 25 is discussed in sections 7(B) and 7(C).

B. Independent Claim 21. The subject matter of independent claim 21 is directed to a transformed host cell comprising a recombinant nucleic acid molecule having the full-length sequence of SEQ ID NO: 5 or complement thereof. Specification at page 205, lines 8-9; Appendix A; page 24, lines 3-14; page 39, lines 9-11 and page 105, line 4 through page 137, line 2.

(i) Dependant Claim 22. The subject matter of dependent claim 22 is directed to a transformed host cell comprising a recombinant nucleic acid molecule having the full-length sequence of SEQ ID NO: 5 or complement thereof, wherein said host cell is a plant cell. Specification at page 205, lines 8-9; Appendix A; page 24, lines 3-14; page 39, lines 9-11 and page 105, line 4 through page 137, line 2.

C. Independent Claim 23. The subject matter of independent claim 23 is directed to a transformed plant comprising a transformed host cell comprising a recombinant nucleic acid molecule having the full-length sequence of SEQ ID NO: 5 or complement thereof, wherein said host cell is a plant cell. Specification at page 205, lines 8-9; Appendix A; page 24, lines 3-14; page 39, lines 9-11 and page 82, line 17 through page 137, line

D. Independent Claim 25. The subject matter of independent claim 25 is directed to a transformed plant consisting of host cells comprising a recombinant nucleic acid molecule having the full-length sequence of SEQ ID NO: 5 or complement thereof, wherein said host cell is a plant cell. Specification at page 205, lines 8-9; Appendix A; page 24, lines 3-14; page 39, lines 9-11 and page 105, line 4 through page 137, line 2.

A copy of the claims on appeal is attached hereto as Claim Appendix A.

6. Grounds of Rejection to be Reviewed on Appeal

The grounds of rejection to be reviewed in this Appeal are:

(a) whether pending claims 20-23 and 25 are unpatentable under 35 U.S.C. § 112, first paragraph, as allegedly containing subject matter which was not described in the specification in such a way as to reasonably convey to one of skill in the art that the inventors had possession of the claimed invention as of the filing date of the application; and

(b) whether pending claims 20-23 and 25 are unpatentable under 35 U.S.C. § 112, first paragraph, as allegedly containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

7. Argument

A. Summary of Appellants' Position

Appellants have provided an adequate description of the claimed transformed plants and host cells as of the filing date of the application. Given at least the teachings of the specification, as filed, a person of ordinary skill in the art would, after reading the specification, understand that Appellants had possession of transformed plants and host cells comprising a nucleic acid sequence having the full-length sequence of SEQ ID NO:5 or complement thereof. Because the specification demonstrates that Appellants had possession of (and has provided an adequate description of) the claimed transformed plants and host cells, the specification satisfies the written description requirement of 35 U.S.C. § 112.

Appellants have also provided sufficient disclosure in the specification to enable a person skilled in the art to make and/or use the invention. Because the specification teaches how to

make and use the claimed transformed plants and host cells without undue experimentation, Appellants have satisfied the enablement requirement of 35 U.S.C. § 112, first paragraph. Furthermore, an analysis of the criteria presented by *In re Wands*, 858 F.2d 731, 8 U.S.P.Q.2d 1400 (Fed. Cir. 1998), indicates that no undue experimentation would be required to make and use the claimed invention.

B. The Claimed Plants and Host Cells Satisfy the Written Description Requirement of 35 U.S.C. § 112, first paragraph

The Examiner rejected claims 20-23 and 25 under 35 U.S.C. § 112, first paragraph, as allegedly "not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention." Final Office Action at page 2. Appellants disagree.

At the outset, Appellants dispute the Examiner's characterization of the rejection as a "new matter rejection." *Id.* at page 2. As set forth in M.P.E.P. § 2163.06, "an issue of new matter will arise if the content of the amendment is not described in the application as filed." The Examiner has not pointed out the basis for a new matter rejection.[2] Support for claims 20-23 and 25 may be found throughout the specification and claims as filed. *See, for example,* page 22, line 10 to page 24, line 14; page 82, line 17 to 137, line 2; page 201, line 1 to page 223, line 47; Table A; and claim 6.

The Examiner also asserts that Appellant lacked possession of the claimed invention. Office Action at page 2. Appellants respectfully submit that the purpose of the written description requirement is to ensure that the inventors had possession of the claimed subject

[2] The Examiner's argument is instead solely focused on the assertion that Appellants lacked possession of the invention.

matter, *i.e.*, to ensure that the inventors actually invented what is claimed. *Gentry Gallery Inc. v. Berkline Corp.*, 134 F.3d 1473, 1479 (Fed. Cir. 1998); *Lockwood v. American Airlines*, 107 F.3d 1565, 1572 (Fed. Cir. 1997); *In re Alton*, 76 F.3d 1168, 1172 (Fed. Cir. 1996). If a person of ordinary skill in the art would, after reading the specification, understand that the inventors had possession of the claimed invention, even if not every nuance, then the written description has been met. *In re Alton*, 76 F.3d at 1175. Indeed, the Federal Circuit stated that "[i]t is not necessary that every permutation within a generally operable invention be effective in order for an inventor to obtain a generic claim, provided that the effect is sufficiently demonstrated to characterize a generic invention." *Capon v. Eshhar*, 418 F.3d 1349, 1359 (Fed. Cir. 2005).

In rejecting the claims, the Examiner asserts that "[t]he specification does not disclose production of any plants using polynucleotides in the absence of regulatory elements." Final Office Action at page 2. The Examiner further alleges that sequences disclosed in the specification "would need to be in the context of regulatory sequences such as promoters." *Id.* at page 3. Appellants disagree.

A person of ordinary skill in the art would, after reading the present specification, understand that Appellants had possession of transformed plants and host cells comprising a nucleic acid sequence having the full-length sequence of SEQ ID NO:5 or complement thereof. The specification provides that "[o]ne or more of the nucleic acid molecules of the present invention may be used in plant transformation or transfection" and that "[e]xogenous genetic material may be transferred into a plant cell and the plant cell regenerated into a whole, fertile or sterile plant." Specification at page 82, lines 18-20. Alone, this is sufficient to satisfy the written description requirement of 35 U.S.C. § 112, first paragraph.

The specification also teaches that the use of regulatory elements, such as promotors, is not a required feature of transformed plants and host cells. For example, the specification provides that a "vector or construct may also include regulatory elements." *Id.* at page 88, line 20 (emphasis added). Additionally, "[a] construct or vector may include a plant promoter to express the protein or protein fragment of choice." *Id.* at page 83, lines 20-21. Given its plain meaning, "may" does not constitute a requirement. Rather, "may" is akin to an option. Taken together, the specification provides written description to one of ordinary skill in the art on how to produce transformed plants comprising, for example, SEQ ID NO: 5, and that SEQ ID NO: 5 may or may not be associated with regulatory sequences. As such, the specification fully supports at least claims 20-23 and 25, all of which claim, *inter alia*, plant(s) or host cell(s).

Appellants strongly disagree with the Examiner's assertion that, given the specification, one of skill in the art would understand that "vector constructs that have regulatory features for expression would have been required." Final Office Action at page 3. As presented, claims 20-23 and 25 do not require the inclusion of regulatory elements. Claims 20-23 and 25 do not even require expression of SEQ ID NO:5 in transformed plants or transformed host cells. The fact that the claims at issue are intended to cover transformed plants and host cells comprising SEQ ID NO:5 that may or may not include regulatory elements, does not mean that Appellants were any less in possession of the claimed transformed plants and host cells.

The fact that the claimed transformed plants and host cells may comprise additional features is beside the point. Such modifications are readily envisioned by one of ordinary skill in the art and disclosed throughout the specification. See, for example, Specification at page 119, lines 19 to 20 (disclosing that one may use a variety of regulatory sequences such as promoter

sequences and enhancer sequences in mammalian cells). Further, the specification provides written description to one of ordinary skill in the art on how to produce at least transgenic plant cells (pages 82 to 105), fungal cells (pages 105 to 117), mammalian cells (pages 117 to 122), insect cells (pages 123 to 131), and bacterial cells (pages 131 to 137). The Examiner ignores this point when rejecting the claims. Again, the exogenous genetic material introduced (*e.g.*, SEQ ID NO: 5) may or may not be associated with regulatory sequences. Given at least this, one of skill in the art would recognize that Appellants were in possession of the claimed invention at the time of filing.

Appellants also dispute the Examiner's reliance on page 83, lines 10-15 of the specification to allegedly show that SEQ ID NO: 5 requires regulatory features, such as promotors, for expression in plants or host cells. Final Office Action at page 3. Page 83, lines 10-15 of the specification reads as follows:

> Transfer of a nucleic acid that encodes for a protein can result in overexpression of that protein in a transformed cell or transgenic plant. One or more of the proteins or fragments thereof encoded by nucleic acid molecules of the present invention may be overexpressed in a transformed cell or transformed plant. Particularly, any of the cytokinin pathway proteins or fragments thereof may be overexpressed in a transformed cell or transgenic plant. Such overexpression may be the result of transient or stable transfer of the exogenous genetic material.

Citing to the aforementioned paragraph, the Examiner contends that "[a]s such, a fair reading of this portion of the specification would lead one of ordinary skill in the art to understand that SEQ ID NO:5 (an incomplete sequence that does not encode a complete protein) would not be intended and that vector constructs that have regulatory features for expression would have been required." Final Office Action at page 3. Appellants disagree.

Whatever else page 83, lines 10-15 of the specification teaches or discloses, it does not require transformed plants and host cells to comprise regulatory sequences, let alone promoters.

In contrast to the Examiner's assertion, the aforementioned paragraph actually helps confirm that Appellants were in possession of the claimed subject matter. Specifically, the specification provides that "[o]ne or more of the proteins or fragments thereof encoded by nucleic acid molecules of the present invention may be overexpressed in a transformed cell or transformed plant." Specification at page 83, lines 11-13 (emphasis added). The specification also states that "any of the cytokinin pathway proteins or fragments thereof may be overexpressed in a transformed cell or transgenic plant." *Id.* at page 83, lines 13-14 (emphasis added). Given at least this teaching, one of skill in the art at the time the invention was made would readily recognize that Appellants were in possession of transformed plants and host cells comprising at least SEQ ID NO:5, a fragment associated with the cytokinin pathway.

Appellants also refute the merit of the Examiner's assertion that "Applicant has not pointed out by page and line number where every limitation of the claims can be found." Final Office Action at page 3. It is well-settled that the description of a claimed invention need not be *in ipsis verbis*. *Gentry Gallery v. Berkline Corp.*, 134 F.3d 1473, 1479, (Fed. Cir. 1998); *In re Alton*, 76 F.3d 1168, 1175 (Fed. Cir. 1996); *Martin v. Johnson*, 454 F.2d 746, 751 (C.C.P.A. 1972). Moreover, in at least the instant Appeal Brief and Office Actions mailed on July 21, 2006 and June 6, 2007, Appellants have cited to the original claims and specification such that one of ordinary skill in the art at the time the invention was made would recognize that Appellants were in possession of the claimed invention.

The Examiner has offered no evidence to demonstrate, in light of the Appellants' disclosure, why one of ordinary skill in the art would reasonably doubt that the invention encompassed by the claims has not been adequately described in the present disclosure.

Therefore, Appellants respectfully request that the Board reverse the written description rejection of claims 8 and 15 through 19 under 35 U.S.C. § 112, first paragraph.

C. The Claimed Transformed Plants and Host Cells Satisfy the Enablement Requirement of 35 U.S.C. § 112, first paragraph

The Examiner rejected claims 20-23 and 25 under 35 U.S.C. § 112, first paragraph, as allegedly containing "subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention." Final Office Action at page 3. The Examiner also asserts that "[f]or those claims that encompass the nucleic acid in the host cell or plant in the context or form where any protein is expressed, the specification does not tell how to use such transformed host cells or plants." *Id.* at page 4. Further, the Examiner asserts that "[f]or those claims that encompass the nucleic acid in the host cell or plant in the context or form where a protein may be expressed, the nucleic acid of claim 12 does not encode a complete or biologically active protein." *Id.* Appellants disagree.

The Examiner has not met the evidentiary burden to impose an enablement rejection. A specification that discloses how to use a claimed invention "must be taken as in compliance with the enabling requirement of the first paragraph of § 112 unless there is reason to doubt the objective truth of the statements contained therein." *In re Brana*, 51 F.3d 1560, 1566, 34 U.S.P.Q.2d 1436, 1441 (Fed. Cir. 1995), *quoting In re Marzocchi*, 439 F.2d 220, 223, 169 U.S.P.Q. 367, 369 (C.C.P.A. 1971) (emphasis in original).

As the M.P.E.P. makes clear, "(t)he specification need not disclose what is well-known to those skilled in the art and preferably omits that which is well-known to those skilled and already available to the public." M.P.E.P. § 2164.05(a). *See also*, *In re Buchner*, 929 F.2d 660, 661

(Fed. Cir. 1991); *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1384 (Fed. Cir. 1986), *cert. denied*, 480 U.S. 947 (1987); and *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 1463 (Fed. Cir. 1984). Furthermore, it is well-established patent jurisprudence that Appellants need not teach "conventional and well-known genetic engineering techniques." *Ajinomoto Co. v. Archer-Daniels-Midland Co.*, 228 F.3d 1338, 1345 (Fed. Cir. 2000).

The Examiner provides no specific evidence whatsoever that claims 20-23 and 25 fail to satisfy the enablement requirement under 35 U.S.C. § 112, first paragraph. Further, in rejecting the claims, the Examiner fails to consider or cite to any of the eight undue experimentation factors provided by the *In re Wands* decision. *See In re Wands*, 858 F.2d 731, 737, 8 U.S.P.Q.2d 1400, 1404 (Fed. Cir. 1998). Although Appellants note that citation to *In re Wands* is not required by the Examiner, analysis of the criteria presented in *In re Wands* supports the Appellants' position that no undue experimentation would be required to make and use the claimed invention. Appellants have provided considerable direction and guidance such that it is well within the level of ordinary skill in the art to practice the claimed invention without undue experimentation. For example, the specification discusses numerous nucleic acid molecules, including SEQ ID NO:5 and complement thereof. Specification, for example, at page 201, line 1 through page 223, line 47 and Table A. In addition, the specification is replete with examples of transformed host cells capable of being used in the invention. Specification, for example, at page 105, line 4 though page 137, line 2. Further, the specification provides guidance to one of skill in the art on how to produce transformed plants comprising the disclosed sequences. Specification, for example, at page 82, line 17 through page 105, line 3. Taken in combination,

such disclosure provides adequate direction to those skilled in the art of how to make and use the claimed invention without undue experimentation.

The first *Wands* criterion is the quantity of experimentation necessary. The "make-and-test" quantum of experimentation is reduced by the extensive knowledge, *e.g.*, of expression systems, to which a person of ordinary skill in the art has access. One of ordinary skill in the art is sufficiently guided by the Appellants' disclosure, which sets forth nucleic acid molecules as well as the fragments or complements thereof. Specification, for example, at page 201, line 1 through page 223, line 47 and Table A. Further, one of ordinary skill in the art would be sufficiently guided by the Appellants' disclosure, which sets forth numerous plants and host cells capable of being used, without undue experimentation, with the disclosed sequences. For example, the specification provides guidance to one of ordinary skill in the art on how to produce at least transgenic plant cells (pages 82 to 105); fungal cells (pages 105 to 117), mammalian cells (pages 117 to 122), insect cells (pages 123 to 131), and bacterial cells (pages 131 to 137) with the sequences disclosed in the specification. Given at least the specification, one of skill in the art would also have the ability to transfer genetic material disclosed in the specification, such as SEQ ID NO: 5, into a variety of plants including, but not limited to maize (pp 63-69), soybean (pp 50-60), *Arabidopsis* (p 45*),* phaseolus (pp 47-49), alfalfa (p 60), wheat (pp 69-71), rice (pp 72-79), oat (pp 80-81), sorghum (p 83), rye (p 84), tritordeum (p 84), millet (p85), fescue (p 85), perennial ryegrass (p 86), sugarcane (p87), dendrobium (p 109), gladiolus (p 110), chrysanthemum (p 110), liliacea (p 111), cotton (pp113-114), eucalyptus (p 115), sunflower (p 118), canola (p 118), turfgrass (p121), sugarbeet (p 122), coffee (p 122) and dioscorea (p 122). Moreover, practitioners in the art are guided by the high level of skill in the art and the present

disclosure of the specification (see, e.g., specification at page 82, line 17 through page 137, line 2). Performing routine and well-known steps cannot create undue experimentation even if it is laborious. *See In re Angstadt*, 537 F.2d 498, 504, 190 U.S.P.Q. 214, 218-219 (C.C.P.A. 1976).

The second and third *Wands* criteria relate to the amount of direction or guidance given, and the presence or absence of working examples. Again, the specification provides evidence that proteins or fragments thereof encoded by nucleic acid molecules of the present invention, such as SEQ ID NO: 5, may be overexpressed in transformed cells or transformed plants and that any of the cytokinin pathway proteins or fragments thereof may be overexpressed in a transformed cell or transgenic plant. Specification at page 83, lines 10-15. Further, at least the specification at page 82, line 17 through page 137, line 2 provides guidance to one of skill in the art on how to make and use transformed plants and host cells comprising at least the claimed sequences. Based on such disclosure, one of ordinary skill in the art would be enabled to make and use the invention commensurate in scope with the claims.

The fourth, fifth, and sixth *Wands* criteria focus on the nature of the invention, the state of the art, and the relative skill in the art. The specification provides a detailed description of the nucleic acid sequences required by the claims, and constructs and methods of use related thereto. *Id.* at page 201, line 1 through page 223, line 47, Table A, and the Sequence Listing. (describing polypeptide molecules encoded by the nucleic acid sequences of the present invention, homologues and other modifications), page 82, line 17 through page 105, line 3 (describing use of the claimed nucleic acid molecules and complements thereof in methods of transforming plants), and page 105, line 4 though page 137, line 2 (describing use of the claimed nucleic acid molecules and complements thereof in methods of transforming host cells). Practitioners in this

art are guided by considerable knowledge and resources on the conditions and approaches that can be utilized to generate transformed plant and host cells comprising the claimed sequences.

The seventh criterion considers the predictability of the art. Appellants respectfully assert, as discussed *infra*, that the specification discloses sufficient guidance such that a person of ordinary skill in the art would, after reading the specification, have the ability to practice the invention in a manner that is commensurate in scope with the claims. That is, one of skill in the art would have the ability to produce transformed plants and host cells comprising at least SEQ ID NO: 5 or complement thereof without undue experimentation.

The eighth criterion focuses on the breadth of the claims. Enablement is satisfied when the disclosure "adequately guide[s] the art worker to determine, without undue experimentation, which species among all those encompassed by the claimed genus possess the disclosed utility". *See In re Vaeck,* 947 F.2d 488, 496, 20 U.S.P.Q.2d 1438, 1445 (Fed. Cir. 1991). In the present case, one of skill in the art is specifically guided by the disclosure to look to, *e.g.*, methods of transforming plants and host cells with the disclosed sequences in making that determination.

Finally, Appellants disagree with the Examiner's assertion that "[f]or those claims that encompass the nucleic acid in the host cell or plant in the context or form where a protein may be expressed, the nucleic acid of claim 12 does not encode a complete or biologically active protein." Final Office Action at page 4. The Examiner's focus on whether or not SEQ ID NO: 5 encodes a full-length protein and biologically active protein is misplaced. That is, the issue is not whether SEQ ID NO: 5 does or does not encode a complete or biologically active protein. Nucleic acid sequences that do not encode complete proteins, or indeed, do not encode any proteins have well-recognized utility (*e.g.*, as promoter sequences, as other regulatory sequences,

as encoding untranslated RNAs such as tRNA, RNAi, etc.) and thus one of ordinary skill in the art would know how to make and use such sequences in transformed plants and cells.

Appellants submit that the rejection of claims 20-23 and 25 under 35 U.S.C. § 112, first paragraph, has been overcome by the arguments set forth above. Appellants respectfully submit that one skilled in the art at the time the invention was made would know how to make and use the claimed invention without undue experimentation. Therefore, Appellants request that the Board reverse the rejection of claims 8 and 15 to 19 under 35 U.S.C. § 112, first paragraph.

Conclusion

In view of the foregoing, Appellants respectfully request that the Board of Patent Appeals and Interferences reverse the pending rejections and that the subject application be allowed forthwith.

Respectfully submitted,

/Holly Logue Prutz/

Date: May 1, 2008

Holly Logue Prutz (Reg. No. 47,755)
David R. Marsh (Reg. No. 41,408)

ARNOLD & PORTER LLP
Attn: IP Docketing
555 Twelfth Street, N.W.
Washington, D.C. 20004-1206
Telephone: (202) 942-5000
Facsimile: (202) 942-5999

CLAIMS APPENDIX A

Claim 12 (Allowed). A substantially purified nucleic acid molecule comprising a nucleic acid sequence having the full-length sequence of SEQ ID NO: 5 or complement thereof.

Claim 13 (Allowed). The substantially purified nucleic acid molecule according to claim 12, wherein said nucleic acid molecule consists of a nucleic acid sequence having the full-length sequence of SEQ ID NO: 5 or complement thereof.

Claim 14. (Allowed) A substantially purified nucleic acid molecule having between 90% and 100% sequence identity with a nucleic acid molecule having the full-length sequence of SEQ ID NO: 5 or complement thereof.

Claim 15. (Allowed) The substantially purified nucleic acid molecule of claim 14, wherein said substantially purified nucleic acid molecule has between 95% and 100% sequence identity with SEQ ID NO: 5 or complement thereof.

Claim 16. (Allowed) The substantially purified nucleic acid molecule of claim 15, wherein said substantially purified nucleic acid molecule has between 98% and 100% sequence identity with SEQ ID NO: 5 or complement thereof.

Claim 17. (Allowed) The substantially purified nucleic acid molecule of claim 16, wherein said substantially purified nucleic acid molecule has between 99% and 100% sequence identity with SEQ ID NO: 5 or complement thereof.

Claim 20. A transformed plant comprising a recombinant nucleic acid molecule having the nucleic acid sequence of claim 12.

Claim 21. A transformed host cell comprising a recombinant nucleic acid molecule having the nucleic acid molecule of claim 12.

Claim 22. The host cell of claim 21, wherein said host cell is a plant cell.

Claim 23. A transformed plant comprising the host cell of claim 21.

Claim 25. A transformed plant consisting of host cells of claim 21.

EVIDENCE APPENDIX

None

RELATED PROCEEDINGS APPENDIX

None